

WHAT IS CLAIMED IS:

1. A liquid dishwashing detergent composition characterized by:
 - (a) from 0.0001% to 5%, of an amylase enzyme; and
 - (b) at least 0.5% of a suds booster;

wherein the composition has especially desirable greasy soil removal performance when used to clean heavily soiled kitchen articles and is substantially free of an ingredient selected from the group consisting of hydrogen peroxide and chelants having a Log K of greater than 3.0.

2. A composition according to Claim 1 wherein the composition is additionally substantially free of amine oxide.
3. A composition according to any of Claims 1-2 wherein the composition is further characterized by amine oxide, from which substantially all of the hydrogen peroxide has been removed so that the amine oxide contains less than 0.02% of hydrogen peroxide.
4. A composition according to any of Claims 1-3 wherein the amylase enzyme has a specific activity at least 25% higher than the specific activity of Termamyl[®] at a temperature range of 25°C to 55°C and at a pH value in the range of 8 to 10, measured by the Phadebas[®] α -amylase activity assay.
5. A process for making a liquid dishwashing detergent composition containing substantially no hydrogen peroxide characterized by the steps of:
 - (a) providing two or more detergent ingredients, at least one of the detergent ingredients characterized by hydrogen peroxide;
 - (b) mixing together said two or more ingredients to form a detergent premix;
 - (c) adding an antioxidant to the detergent premix to form a peroxide-neutralized detergent premix; and
 - (d) adding amylase enzymes, and optionally one or more detergent adjuvants to the peroxide-neutralized detergent premix, wherein detergent adjuvants are substantially free of hydrogen peroxide.

6. A process according to any of Claims 1-5 wherein the detergent ingredients are characterized by amine oxide and wherein the amine oxide contains hydrogen peroxide, present as an impurity.
7. A process for making a liquid dishwashing detergent composition containing substantially no hydrogen peroxide characterized by the steps of:
- (a) providing a quantity of amine oxide containing hydrogen peroxide;
 - (b) adding a sufficient amount of an antioxidant to the quantity of amine oxide to from a detergent premix whereby the amount of hydrogen peroxide in the quantity of amine oxide is less than 0.02%; and
 - (c) adding amylase enzymes, and optionally one or more detergent adjuvants to the detergent premix, wherein the detergent adjuvants are substantially free of hydrogen peroxide.
8. A composition according to any of Claims 1-7 wherein the composition is substantially free of chelants having a Log K of greater than 1.5.
9. A composition according to any of Claims 1-8 wherein the amylase enzyme has a calcium binding constant of Ca_{bind} and the composition is additionally substantially free of chelants having a calcium binding constant of greater than $0.75 * Ca_{bind}$.
10. A composition according to any of Claims 1-9 wherein the composition is characterized by 0.0001% to 0.05%.

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